

REMARKS

The present response is intended to be fully responsive to all points of objection and rejection raised by the Examiner and is believed to place the application in condition for allowance. Favorable reconsideration and allowance of the application is respectfully requested.

Applicants assert that the present invention is new, non-obvious and useful. Prompt consideration and allowance of the claims is respectfully requested.

Status of Claims

Claims 1-15 are pending in the application. Claim 6 has been objected to. Claims 1-5 and 7-15 have been rejected. Claims 1-6, and 8-11 have been amended.

Claims 7 and 13 have been canceled without prejudice or disclaimer. In making this cancellation without prejudice, Applicants reserve all rights in these claims to file divisional and/or continuation patent applications.

Claims 3, 4, 5, 6, 8, 9 and 11 have been voluntarily amended. Claims 3, 4, 9 and 11 were amended by deleting reference indications. Claim 5 was rewritten in dependent form, and amended for clarification only. Claims 6 and 8 were also amended for clarification only.

These amendments do not narrow the scope of the claims, nor are being made for reasons of patentability. The amended claim is not subject to the complete bar against the use of the doctrine of equivalents as outlined in *Festo Corporation v. Shoketsu Kinsoku Kogyo Kapushiki Co., Ltd. a/k/a SMC Corporation and SM Pneumatics, Inc.*, as the amendments do not narrow the scope of the claims, nor are being made for reasons of patentability.

Applicants respectfully assert that the amendments to the claims add no new matter.

Allowable Subject Matter

In the Office Action, the Examiner stated that claim 6 would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. Applicants acknowledge gratefully and reserve the right for a later time if necessary.

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CLAIM REJECTIONS

35 U.S.C. § 102 Rejections

In the Office Action, the Examiner rejected claims 1, 3, 4, and 9 under 35 U.S.C. § 102(e), as being anticipated by Scheueringer (US Patent 7,054,412 B2). Applicants respectfully traverse this rejection in view of the remarks that follow.

Scheueringer does not disclose an X-ray unit that includes "at least a first arrangement for contactless and X-ray-free measurement of first data of an object, the first data comprising at least one thickness measurement of the object, said at least one thickness measurement of the object derived from a measured distance to at least two positions on the surface of the object..." as claimed in amended independent claim 1. In contrast, Scheueringer purports to describe calculating the thickness of a patient by measuring the height of the surface of the patient and inferring the thickness from known geometric data of the system, such as the height and thickness of the patient table. Such an inference does not provide accurate thickness information for an x-ray examination except when the axis of the x-ray measurement is nearly perpendicular to the table.

For a reference to anticipate a claim, the reference must teach all elements of the claim. Therefore, Scheueringer cannot anticipate independent claim 1, as amended.

Accordingly, Applicants respectfully assert that amended independent claim 1 is allowable. Claims 3, 4 and 9 depend from, directly or indirectly, claim 1, and therefore include all the limitations of that claim. Therefore, Applicants respectfully assert that claims 3, 4 and 9 are likewise allowable. Accordingly, Applicants respectfully request that the Examiner withdraw the rejections to amended independent claim 1 and to claims 3, 4 and 9.

35 U.S.C. § 103 Rejections

In the Office Action, the Examiner has rejected claim 2 under 35 U.S.C. § 103(a), as being unpatentable over Scheueringer in view of Proksa *et al.* (US Patent Application Publication 2001/0014140 A1).

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Applicants respectfully traverse the rejection of claim 2 under Scheueringer and Proksa *et al.*

The combination of Scheueringer and Proksa *et al.* does not teach or suggest all the limitations of amended independent claim 1, and therefore does not teach or suggest all the limitations of dependent claim 2. Scheueringer has been discussed above. That discussion is applicable here. Proksa *et al.* is also silent as to determining "at least a first arrangement for contactless and X-ray-free measurement of first data of an object, the first data comprising at least one thickness measurement of the object, said at least one thickness measurement of the object derived from a measured distance to at least two positions on the surface of the object..." and therefore cannot cure the deficiencies of Scheueringer. Accordingly, Applicants respectfully assert that this rejection should be withdrawn.

An obviousness rejection requires a teaching or a suggestion by the relied upon prior art of all the elements of a claim (M.P.E.P. § 2142). Because neither Scheueringer or Proksa *et al.*, alone or in combination, teach or suggest all the elements of amended independent claim 1, and therefore claim 2, the Examiner fails to establish a *prima facie* showing that claim 2 is obvious in view Scheueringer or Proksa *et al.*, alone or in combination.

Accordingly, Applicants respectfully assert that amended independent claim 1 is allowable. Claim 2 depends, directly or indirectly, from claim 1, and therefore includes all the limitations of that claim. Therefore, Applicants respectfully assert that claim 2 is likewise allowable. Accordingly, Applicants respectfully request that the Examiner withdraw the rejections to claim 2.

The Examiner has also rejected claim 5 under 35 U.S.C. § 103(a), as being unpatentable over Scheueringer in view of Saunders (US Patent 4,896,343).

Applicants respectfully traverse this rejection of amended claim 5.

The combination of Scheueringer and Saunders does not teach or suggest all the limitations of amended independent claim 1, nor does it teach or suggest all the limitations of dependent claim 5, as currently amended. Scheueringer has been discussed above. That discussion is applicable here. Saunders describes using triangulation to measure the height of one side of a patient. The measurement described can only be used to infer a thickness only

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with reference to known geometry, and is therefore subject to the limitations of the measurements described by Scheueringer. Saunders is also silent as to determining a "at least a first arrangement for contactless and X-ray-free measurement of first data of an object, the first data comprising at least one thickness measurement of the object, said at least one thickness measurement of the object derived from a measured distance to at least two positions on the surface of the object..." and therefore cannot cure the deficiencies of Scheuering. Accordingly, Applicants respectfully assert that this rejection should be withdrawn.

An obviousness rejection requires a teaching or a suggestion by the relied upon prior art of all the elements of a claim (M.P.E.P. §2142). Since Scheueringer or Saunders, alone or in combination, do not teach or suggest all the elements of amended independent claim 1, and therefore claim 5, the Examiner fails to establish a *prima facie* showing that claim 5 is obvious over Scheuering or Saunders, alone or in combination.

Accordingly, Applicants respectfully assert that amended independent claim 1 is allowable. Claim 5, as currently amended, depends from, directly or indirectly, claim 1, and therefore includes all the limitations of that claim. Therefore, Applicants respectfully assert that claim 5 is likewise allowable. Accordingly, Applicants respectfully request that the Examiner withdraw the rejections to claim 5 dependent thereon.

The Examiner rejected claim 7 under 35 U.S.C. § 103(a), as being unpatentable over Scheueringer and Saunders, in view of Shukla *et al.* (US Patent 6,708,054 B2).

Applicants respectfully traverse this rejection of amended claim 7..

The combination of Scheueringer, Saunders, and Shukla *et al.* does not teach or suggest all the limitations of amended independent claim 1, nor does it teach or suggest all the limitations of amended dependent claim 5. Claim 7 is dependent from claim 5. Scheueringer and Saunders have been discussed above. That discussion is applicable here. Shukla *et al.* purport to describe using a plurality of stationary measuring units for the purpose of mapping points on a surface of a patient for the purpose of patient alignment. The measurement described is not used to measure thickness of the patient, and could only do so with reference to known geometry, and is therefore subject to the limitations of the measurements described by Scheueringer and Saunders. Shukla *et al.* are also silent as to

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determining a "at least a first arrangement for contactless and X-ray-free measurement of first data of an object, the first data comprising at least one thickness measurement of the object, said at least one thickness measurement of the object derived from a measured distance to at least two positions on the surface of the object..." and therefore cannot cure the deficiencies of Scheueringer and Saunders. Accordingly, Applicants respectfully assert that this rejection should be withdrawn.

An obviousness rejection requires a teaching or a suggestion by the relied upon prior art of all the elements of a claim (M.P.E.P. §2142). Because Scheueringer, Saunders, and Shukla *et al.*, alone or in combination, do not teach or suggest all the elements of amended independent claim 1, and therefore claim 7, the Examiner fails to establish a *prima facie* showing that claim 7 is obvious over Scheueringer, Saunders, or Shukla *et al.*, alone or in combination.

Accordingly, Applicants respectfully assert that amended independent claim 1 is allowable. Claim 5, as currently amended, depends directly or indirectly from claim 1, and therefore includes all the limitations of that claim. Claim 7 depends, directly or indirectly, from amended dependent claim 5, and therefore includes all the limitation of that claim and of amended claim 1. Accordingly, Applicants respectfully request that the Examiner withdraw the rejections to claim 7 dependent thereon.

Claim 7 has been cancelled without prejudice or disclaimer, because its limitations were incorporated into amended claim 2.

The Examiner has also rejected claim 8 under 35 U.S.C. § 103(a), as being unpatentable over Scheueringer and Saunders, in view of Proksa *et al.*

Applicants respectfully traverse this rejection of claim 8.

The combination of Scheueringer, Saunders, and Proksa *et al.* does not teach or suggest all the limitations of amended independent claim 1, nor does it teach or suggest all the limitations of dependent claim 8, as currently amended. Scheueringer, Saunders, and Proksa *et al.* have been discussed above. That discussion is applicable here. Proksa *et al.* are silent as to determining a "at least a first arrangement for contactless and X-ray-free measurement of first data of an object, the first data comprising at least one thickness

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measurement of the object, said at least one thickness measurement of the object derived from a measured distance to at least two positions on the surface of the object..." and therefore cannot cure the deficiencies of Scheueringer and Saunders. Accordingly, Applicants respectfully assert that this rejection should be withdrawn.

An obviousness rejection requires a teaching or a suggestion by the relied upon prior art of all the elements of a claim (M.P.E.P. §2142). Because Scheueringer, Saunders, or Proksa *et al.*, alone or in combination, do not teach or suggest all the elements of amended independent claim 1, and therefore claim 8, the Examiner fails to establish a *prima facie* showing that claim 8 is obvious over Scheueringer, Saunders, or Proksa *et al.*, alone or in combination.

Accordingly, Applicants respectfully assert that amended independent claim 1 is allowable. Claim 8, as currently amended, depends, directly or indirectly, from claim 1, and therefore includes all the limitations of that claim. Therefore, Applicants respectfully assert that amended claim 8 is likewise allowable. Accordingly, Applicants respectfully request that the Examiner withdraw the rejections to amended claim 8.

Further, the Examiner has rejected claims 10, 11, and 13-15 under 35 U.S.C. § 103(a), as being unpatentable over Scheueringer in view of Proksa *et al.*

Applicants respectfully traverse this rejection of claims 10, 11, and 13-15.

The combination of Scheueringer and Proksa *et al.* does not teach or suggest all the limitations of amended independent claim 10, nor does it teach or suggest all the limitations of dependent claims 11 and 13-15. Scheueringer does not discuss "measuring of first data of the object, the first data comprising at least one thickness measurement of the object, said at least one thickness measurement of the object derived from a measured distance from a first arrangement by means of a contactless and X-ray-free measurement of first data of the object to at least two positions on the surface of the object..." Proksa *et al.* is also silent with regard to this limitation and therefore cannot cure the deficiencies of Scheueringer. Accordingly, Applicants respectfully assert that this rejection should be withdrawn.

An obviousness rejection requires a teaching or a suggestion by the relied upon prior art of all the elements of a claim (M.P.E.P. §2142). Because Scheueringer or Proksa *et al.*,

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alone or in combination, do not teach or suggest all the elements of amended independent claim 10, the Examiner fails to establish a *prima facie* showing that claim 10 is obvious in view of Scheueringer or Proksa *et al.*, alone or in combination.

Accordingly, Applicants respectfully assert that amended independent claim 10 is allowable. Claims 11 and 13-15 depend, directly or indirectly, from claim 10, and therefore include all the limitations of that claim. Therefore, Applicants respectfully assert that claims 11 and 13-15 are likewise allowable. Accordingly, Applicants respectfully request that the Examiner withdraw the rejections to claims 11 and 14-15.

Claim 13 has been cancelled without prejudice or disclaimer, because its limitations were incorporated into amended claim 10.

The Examiner has also rejected claim 12 under 35 U.S.C. § 103(a), as being unpatentable over Scheueringer and Proksa *et al.*, in view of Saunders.

Applicants respectfully traverse this rejection of claim 12.

The combination of Scheueringer, Proksa *et al.* and Saunders does not teach or suggest all the limitations of amended independent claim 10, nor does it teach or suggest all the limitations of dependent claim 12. Scheueringer and Proksa *et al.* have been discussed above. That discussion is applicable here. Saunders is also silent as to "measuring of first data of the object, the first data comprising at least one thickness measurement of the object, said at least one thickness measurement of the object derived from a measured distance from a first arrangement by means of a contactless and X-ray-free measurement of first data of the object to at least two positions on the surface of the object..." and therefore cannot cure the deficiencies of Scheueringer and Proksa *et al.* Accordingly, Applicants respectfully assert that this rejection should be withdrawn.

An obviousness rejection requires a teaching or a suggestion by the relied upon prior art of all the elements of a claim (M.P.E.P. §2142). Because Scheueringer, Proksa *et al.*, or Saunders, alone or in combination, do not teach or suggest all the elements of amended independent claim 10, and therefore claim 12, the Examiner fails to establish a *prima facie* showing that claim 12 is obvious in view of Scheueringer, Proksa *et al.* or Saunders, alone or in combination.

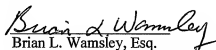
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Accordingly, Applicants respectfully assert that amended independent claim 10 is allowable. Claim 12 depends, directly or indirectly, from claim 10, and therefore includes all the limitations of that claim. Therefore, Applicants respectfully assert that claim 12 is likewise allowable. Accordingly, Applicants respectfully request that the Examiner withdraw the rejections to claim 12 dependent thereon.

In view of the foregoing amendments and remarks, the pending claims are deemed to be allowable. Their favorable reconsideration and allowance is respectfully requested.

Should the Examiner have any question or comment as to the form, content or entry of this Amendment, the Examiner is requested to contact the undersigned at the telephone number below. Similarly, if there are any further issues yet to be resolved to advance the prosecution of this application to issue, the Examiner is requested to telephone the undersigned counsel.

Respectfully submitted,


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